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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,605	12/20/2001	James W. Everitt	CLMCR.016A1	4545

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EXAMINER

LAO, LUN YI

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,605

Applicant(s)

EVERITT, JAMES W.

Examiner

Lao Y Lun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-7 and 9-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/029,563. Although the conflicting claims are not identical,

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they are not patentably distinct from each other because they claim the same subject matter of a display apparatus for driving an light emitting diode by correction table comprising a driver having two capacitor, the first capacitor for driving current across an organic light emitting diode in a first row and the second capacitor for driving current across an organic light emitting diode in a second row.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "348" has been used to designate both compensation Table 2 and an A/D converter. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:

The recitations of "(A/D) 348" on page 9, line 14 and "lookup table 348" on page 8, line 28, page 9, line 22-23, 30; page 10, line 28 should be amended since different elements can not used the same number"348".

The recitation of "a calibration circuit 338" on page 8, lines 20-21 should be changed to "a calibration circuit **346**"(see figure 3).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 , 4, 11, 15 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kane et al(EP 0,905,673).

As to claims 1-2, 4, 11, 15 and 18-19, Kane et al teach a video display comprising: a voltage correction table(1340)(see figures 13-14, 17, 19, 21); a calibration Unit(see figure 15, 16, 18, 20, 22, 23) for generating data in the voltage correction table; and at least one driver(data driver 110) configured to drive at least one organic light emitting diode(304) at a voltage defined, at least in part, by the voltage correction table(see figures 1, 3, 13-15; column 15, lines 43-58; column 16, lines 1-2 and lines 39-42; column 20, lines 17-58 and column 21, line 1).

As to claim 2, Kane et al teach the voltage correction table including a current to voltage lookup table(voltage output

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is proportional to the current input(see figures 13-14 and column 15, lines 52-58).

As to claim 4, Kane et al teach the voltage correction table includes a pixel offset compensation table(see figures 13-16; column 19, lines 22-58; column 20 and column 21, lines 1-20).

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 6, 11, 13, 15, 18 and 19 and are rejected under 35 U.S.C. 102(e) as being anticipated by Fan(6,473,065).

As to claims 1, 6, 11, 13, 15, 18 and 19, Fan teaches a passive matrix of LED display comprising a voltage correction table(70); a calibration unit(70,80,90) for generating data in the voltage correction table; and a driver(90) for applying the correcting voltage to light emitting diodes(5)(see figures 1, 5a, 5b and column 6, lines 14-52).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kane et al(EP 0,905,673).

As to claim 3, it would have been obvious to have a plurality of reference currents across at least the diode(304) since Kane et al teach a display apparatus for applying a reference voltage to a diode(304)(see figures 13, 14; column 15, lines 28-55 and column 16, lines 39-51).

11. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silvestre et al(WO 01/27910).

As to claims 1 and 5, Silvestre et al teach a video display comprising a current correction table(13); a calibration unit(6, 7, 13, 14) for generating data in the current correction table; and a driver(6) for applying the correcting current to light emitting diodes(12)(see figures 1-3 page 6, lines 1-23).

It would have been obvious to have a voltage correction table instead of a current correction table since the current can be converted to a current by applying resistance.

As to claim 5, Silvestre et al teach a correction table having a column resistance lookup table(see page 6, lines 4-18).

12. Claims 1, 6-7, 9-13, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi(5,708,452) in view of Kuga(5,703,608).

As to claims 1, 6-7, 9-13, 18 and 20, Takahashi teaches a passive matrix of LED display comprising a voltage correction circuit(Brightness adjusting circuit); a calibration unit(3, 4 and brightness adjusting circuit) for generating data in the voltage correction table; and a driver(4) for applying the correcting voltage to light emitting diodes(see figures 3-4 and column 3, lines 20-56).

It would have been obvious to have a brightness adjusting circuit containing a table so as to correct the error presented on a display more easily.

As to claims 7, 9, 12 and 20, Takahashi teach a display device having a driver have two capacitors.

Kuga teaches a display apparatus having a driver(207) with two capacitor(15, 16) alternatively connected to a signal line(3)(see figures 1-3, 9; column 3, lines 18-42 and lines 59-68; column 4, lines 1-10 and lines 42-61). It would have been obvious to have modified Takahashi et al with the teaching of Kuga, since they both have sample and hole circuit(see Takahashi's figure 3 and Kuga's figure 9) and Takahashi et al as modified could provide a display apparatus having a high image quality and a high reliability with a simple structure(see Kuga's column 3, lines 57-68).

Allowable Subject Matter

13. Claim 8 is allowable.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Norman et al(5,719,589) teach an OLED display having a switch selectively connected to a reset potential and a current source.

Feldman(6,501,230) teaches an LED display having a aging correction circuit(24).

Yano et al teach a display apparatus having a memory for current correction.

Tsuji(6,545,652) teaches an display apparatus a correction circuit(65).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

December 11, 2003


Lun-yi Lao
Primary Examiner